

Fig. 3-4. This plan for a bed frame should have been drawn to a smaller scale. A huge drawing like this would not only be hard to read, but hard to make. Drawings made too small will cause similar problems.

increased or decreased by the same amount (in proportion) when drawn. This means you can make your drawing either smaller or larger than the finished project without changing its appearance. You then have a working drawing that is easy to use. Can you imagine trying to use a full-size drawing of a bed frame, as shown in Fig. 3-4? It would be very unhandy, if not impossible.

Most projects need to be drawn smaller than their actual sizes. You can do this easily with a scale. See Fig. 3-5. A typical scale has measuring units for full size, half-size, quarter-size, and eighth-size drawings. A quarter-size drawing, for example, would be only one-fourth the project's final size. A 1-inch (25 mm) measurement on the project would be 1/4 inch (6 mm) on the drawing.

Determine the most convenient scale reduction by comparing the size of the project to the size of the drawing paper. Architectural drafters, for instance, use scales in which 1 inch equals 1 foot. Their projects are houses and buildings so they must reduce dimensions a great deal. You may need to scale your project up or down. Your drawing must show enough detail and still fit on the paper. See Fig. 3-6.

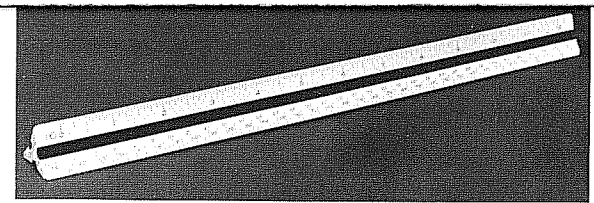


Fig. 3-5. Scales are instruments used to reduce or enlarge the dimensions of a project without changing its proportions. Scales are provided on each of the instrument's three sides.

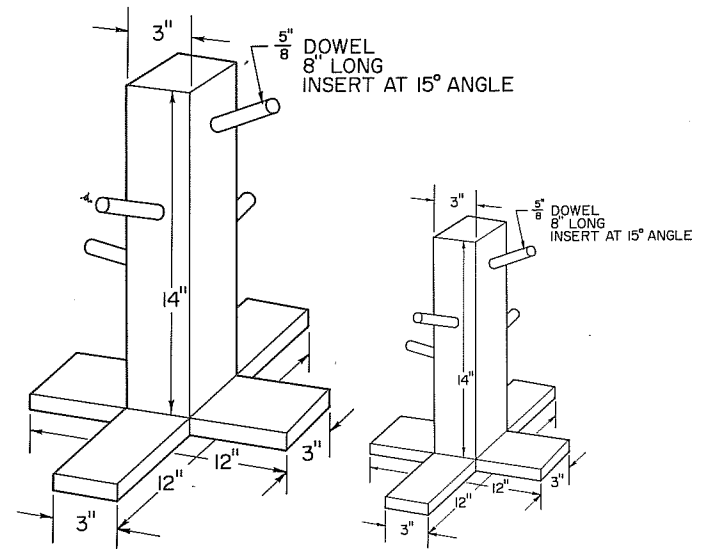


Fig. 3-6. The two scale drawings above will produce the same size mug tree.

Drawing Lines. To make or read a working drawing, you must know the meaning of several lines. You also need to know how to make these lines. Study Fig. 3-7 and the following information to learn about these lines.

Object lines (also called visible lines) are bold and dark. They show the visible outline of the project.

Hidden lines are drawn as short, even dashes. They show the location of parts not seen in a particular view.

Center lines are thin, light lines. They are drawn with alternating short and long dashes.